

Diana Gluhak Spajić, PhD student

RED FORK Ltd
Owner of Healthy Meal Standard
E-mail: diana@redfork.hr

Sanda Renko, PhD

Full Professor
University of Zagreb
Faculty of Economics and Business
Department of Trade and International Business
E-mail: srenko@efzg.hr

Kristina Petljak, PhD

Assistant Professor
University of Zagreb
Faculty of Economics and Business
Department of Trade and International Business
E-mail: kpetljak@efzg.hr

THE NECESSITY OF COLLABORATION BETWEEN PARENTS, TEACHERS AND SCHOOLS FOR ADOLESCENTS' HEALTHY EATING

UDC / UDK: 613.955:641.5

JEL classification / JEL klasifikacija: L66

Preliminary communication / Prethodno priopćenje

Received / Primljeno: December 6, 2018 / 6. prosinca 2018.

Accepted for publishing / Prihvaćeno za tisak: May 27, 2019 / 27. svibnja 2019.

Abstract

This paper focuses on the relationship between parents and schools in encouraging healthy eating behaviour for adolescents as it is thought to have an important role in creating adolescents' healthy eating habits. The purpose of the paper is to identify the differences between the perception of parents and teachers regarding healthy eating in schools, as well as the existence of their partnerships. The study used a quantitative approach and a survey of teachers and parents. However, this approach resulted in a major limitation of this paper because the study was based on research conducted among conveniently selected schools and teachers only. Moreover, it is focused on early adolescents (10-13 years old). The results of the study showed that there were no significant differences among the attitudes and opinions of parents and teachers and that a proactive and positive approach is needed for accepting healthy nutrition. Accordingly, the findings

from this study have important implications for the development of educational programmes with the specific focus on building a stronger relationship between schools and parents with the ultimate goal of being able to improve communication about adolescents' nutrition.

Keywords: *healthy food, parents, school, teachers, adolescents, Croatia*

1. INTRODUCTION

As the years between the onset of puberty and the establishment of social independence (Steinberg, 2014) adolescence is associated with a search for independence, identity and changes in lifestyles of young people including interactions between the different factors (e.g. gender, culture, race, etc.) which influence adolescents' eating habits and lifestyles. Videon and Manning (2003) add that adolescence is a time when young people have opportunities to make their own decisions about what and when to eat (Whitney & Rolfes, 2015), but also a time when healthy eating is often given a low priority or not practiced at all (Neumark-Sztainer, Story, Perry & Casey, 1999). As eating disorders are common in adolescents (Isomaa, Isomaa, Marttunen & Kaltiala-Heino, 2010) in many countries governments have taken precautions, set some guidelines and tried to promote healthy eating in schools. Those guidelines have outlined two key objectives for schools: to ensure that students are healthy in order to optimize their learning and to work with parents in educating their children about healthy eating. The purpose of this study was to synthesise a deep understanding of the collaborative partnerships between parents, teachers, and schools, with a critical focus on encouraging healthy eating to adolescents which has become increasingly important due to the growing risk of obesity in children (Blom-Hoffman, Wilcox, Dunn, Leff & Power, 2008).

There are numerous studies about the positive impact of the school-parent partnership and the success of their children, not just in school but throughout life (St Leger, Young, Blanchard & Perry, 2010).

Particularly, Dev, Byrd-Williams, Ramsay, McBride, Srivastava, Murriel, Arcan & Adachi-Mejia (2017) point out the lack of communication between schools and parents as a barrier in fostering concrete improvement in children's nutrition. This topic has been explored in the context of Croatia, which characterizes a rising prevalence of adolescent obesity. The Ministry of Health of the Republic of Croatia (2013) and the Croatian National Institute of Public Health established a set of School Eating Norms which define the recommended daily intake for different types of food and drink to ensure children maintain a balanced diet during school hours. However, there is no systematic and coordinated monitoring of a schools' food environment. A few schools periodically conduct surveys among school children and their parents about the satisfaction of school food policies, while there are no parent-school relationships related to planning and improving school meals. As a part of the EPODE

(‘Ensemble Prévenons l’Obésité Des Enfants’- Together Let’s Prevent Childhood Obesity) International Network, the intervention program was implemented due to the rapidly increasing number of overweight children in 2015. It is a shift in approach from standalone school food policies to school-based nutrition education in collaboration with parents.

Following the introduction, the paper begins with a theoretical background and an explanation of the role parents and schools (or teachers) have in structuring adolescents’ experiences with food and eating. Moreover, the presentation of initiatives in the investigated topics in the EU and worldwide is given. Then, the research methodology and the results of the study among teachers and parents in the Croatian market are presented. Finally, the paper discusses the theoretical and managerial implications, including the limitations of the study and directions for future research.

2. THEORETICAL BACKGROUND

There is a growing body of studies focusing on the role of parents in structuring children’s early experiences with food and eating, because they consider the first years of life as the years of creating and shaping eating behaviours that form a foundation for the development of future dietary consumption patterns (Savage, Orlet Fisher & Birch, 2007).

In the study of Neumark-Sztainer, Story, Ackard, Moe & Perry (2000), adolescents perceive eating healthy foods with family meals and identify parents as important influences regarding diet consumption patterns. Therefore, Power, Bindler, Goetz & Daratha (2010) associate why teachers often blame parents (e.g., family schedules and poor parental monitoring), parents often blame adolescents (e.g., poor appetites and picky eating), and adolescents often blame their parents (e.g., parents buy the food, unhealthy foods are hard to resist) (p.17). As children mature and start school, teachers and other people at school, together with the media and social leaders, become more significant (Pérez-Rodrigo & Aranceta, 2001).

2.1. Communication between Parents, Schools and Teachers in Improving Dietary Patterns

Currently, there is a lack of research on the role of the partnership between parents and teachers in the promotion of healthy eating as well as in the longer-term (Blom-Hoffman et al., 2008), because studies mostly reported the individual roles of parents, and schools as major influences on their dietary patterns (Evans, Wilson, Buck, Torbett & Williams, 2006). Wilson, Williams, Evans, Mixon & Rheume (2005) and Kubik, Lytle & Fulkerson (2005) agree that the influence of parents was thought to function primarily through modeling, providing opportunities, and setting limits, and schools were also present by

introducing various physical activities and healthy foods. Salvy, Elmo, Nitecki, Kluczynski & Roemmich (2011) and Poti and Popkin (2011) consider parents, home and family environments as the most important areas for improving adolescents' eating habits, as during early adolescence, family and parents exercise a protective influence on food choices and dietary habits (Pearson, Biddle & Gorely, 2009). Although numerous studies have investigated adolescent nutritional and physical activity issues, a limited amount of studies have focused on the responses of parents and teachers regarding the concerns relevant to the recommended intervention. As schools involved reported disappointing outcomes in the assessment of their health promotion activities and events that were solely based in school, Clelland, Cushman and Hawkins (2013) point out that health education classes can only be effective if classroom learning is supported in other settings, especially at home. Namely, success in the promotion of healthy eating patterns among children depends upon the relationship between parents and teachers. They have to work as partners, supporting the continuity of nutritional activities for children and providing consistent information about healthy eating. This is in line with research (Emerson, Fear, Fox & Sanders, 2012) which indicates that positive relationships between parents and schools boost learning outcomes among children.

The literature agrees (Taylor, Quinn, Littlelyke & Coll, 2012) that parental involvement is a highly important success factor concerning stakeholder participation in effective school-based health promotion, particularly in the case of students' nutritional health. Brill, Lichtman & Wu-Jung (2017) showed that good nutrition and plenty of physical activity, particularly when the school day ends, are vital to the academic success of children. Therefore, schools are trying to actively include parents in their efforts to improve healthy eating by providing them with the necessary knowledge, skills, and support. Research has highlighted the role of parental feeding practices (Brown, Ogden, Vögele & Gibson, 2008) and their role as caregivers and food providers (Clelland et al., 2013). Reicks, Banna, Cluskey, Gunther, Hongu, Richards, Topham & Wong (2015) discuss the influence of parents in regards to the eating behaviours of early adolescents during group meals when parents are included as well as independent eating occasions by engaging in practices that affect the availability of foods and beverages and through perceived normative beliefs and expectations for intake.

McGrath (2007) points out the influence of parents and teachers in the development of children's eating behaviours that extend into adolescence and adulthood; however, he also highlights the lack of effective communication to ensure optimal nutrition of children. Elias, Bryan, Patrikakou & Weissberg (2003) attempt to investigate the concepts necessary to improve the roles and relationships among parents and schools considering the problem of adolescent obesity as children reach the teen years. They suggest more meaningful partnerships and pledge new forms of mutual school-home engagement. The fact is that school-based programs frequently include family components. Blom-Hoffman et al. (2008) conducted a systematic review of such nutrition education

programs in schools and found out that more than half include a family component.

The most challenging part of bringing the necessary collaborative incentive to school-based health promotion depends upon the development of effective partnerships with parents (Inchley, Muldoon & Currie, 2007). Cleland-Donnelly, Mueller and Gallahue (2007) summarize the advantages that schools have in taking a proactive approach while engaging parents and families in their activities and decision making due to parents' skills, expertise, and, most importantly, information about their child and the home environment. On the other hand, this approach allows parents to cultivate a greater understanding of health conditions, and the programs used within the school to address them. In such a way parents can emphasise the knowledge and skills learned at school at home.

2.2. Framework on Parent Involvement in School-Based Healthy Food Activities

Adolescent obesity has become a global problem and a risk factor for the development of a broad range of non-transferable diseases (World Health Organization [WHO], 2014). In many communities schools are the places where children, adolescents, and their parents can primarily learn about healthy lifestyle habits (Lobstein, Jackson-Leach, Moodie, Hall, Gortmaker, Swinburn, James, Wang & Mcpherson (2015); Psaki, 2016). Due to the fact that this paper investigates healthy eating patterns of adolescents as well as the level of involvement of their parents and teachers in school food policies in an emerging country in Southeast Europe. In this chapter we address the current policies, procedures and practices regarding school-based healthy food initiatives in the EU. The EU member states differ in their approaches to the problem of healthy eating among children and adolescents. Some of them apply voluntary guidelines or mandatory regulations for foods and drinks that should be served in the school setting (Storcksdieck, Bonsmann, Kardakis, Wollgast, Nelson & Caldeira, 2014). They include defined lists of food (dis-)allowed for sale on school premises, and standards that specify school menu planning, procurement of catering services, staff training, kitchen and dining facilities, and marketing restrictions (Storcksdieck et al., 2014. p. 12).

In 2006, the World Health Organization Europe (WHO, 2013) published a guidance paper Vienna Declaration on Nutrition and Noncommunicable Diseases in the Context of Health 2020 to support the development of school nutrition programs in the European Region. In order to address the problems of overweightness and obesity, in 2007 the European Commission adopted the White Paper on a Strategy for Europe on Nutrition, Overweight and Obesity-related Health Issues with a focus on six key areas: better informed consumers, making healthy options available, encouraging physical activity, developing an evidence base to support policy making, developing monitoring systems and

programme priorities for socioeconomically disadvantaged areas (Commission of the European Communities, 2007). European Healthy School Lunches was one of the initiatives to promote healthy diets for children in 2015. This involved children from pre-school to secondary schools being served healthy meals from European recipes provided by a group that consisted of nutrition experts from the Member States (<https://ec.europa.eu/jrc/en/news/healthy-school-food-expo-milano-2015>). A lot of schools were included in the EU School Fruit Scheme, a program that contributed to the distribution of an average of 35 portions of fruit and vegetables to over 8 million school children (https://ec.europa.eu/health/sites/health/files/nutrition_physical_activity/docs/pheiac_nutrition_strategy_evaluation_en.pdf).

In summary, there are lots of projects and initiatives of the European Commission, such as My Healthy Family. It was an EU project tested in Hungary and Poland in 2015, which aimed to inspire children to eat more fruit and vegetables. However, no programs are directly related to parent involvement in school-based healthy food activities, and especially partnerships between parents and schools. For example, parents are mentioned as one of the key areas for action in the EU Action Plan on Childhood Obesity 2014-2020 as support for its successful implementation. https://ec.europa.eu/health/sites/health/files/nutrition_physical_activity/docs/childhoodobesity_actionplan_2014_2020_en.pdf.

As a member state, Croatia is following all the above mentioned EC directives but also has developed its own initiatives on food, nutrition and physical activity that rely on collaboration between parents and schools. One of them is an interesting model in the school dorm "Podmurvice" in Rijeka, where dorm staff uses multidimensional cards and the Gaudeamus program to provide parents and staff to monitor several points in the school dorm (<http://www.ucenicki-dom-podmurvice.hr/prehrana/nacela-prehrane.html>). There is also a new system for the certification of healthy nutrition in schools and kindergartens called the Healthy Meal Standard, which ensures the guidelines are implemented in practical use, and regularly monitored and checked. The Healthy Meal Standard is a quality system which recommends parental education and cooperation in order to better adjust menus in schools or kindergartens and to transfer new eating habits to the family (www.healthymealstandard.eu).

Based on the existing research and theoretical notions explained above we hypothesized that there should be a positive relationship between parents and schools in promoting adolescents' healthy eating.

3. METHODOLOGY

In specifying the research sample, we took into consideration Curtis (2015) who states that inconsistencies in the chronological definitions of adolescence, and adolescent sub-stages, can create confusion in the construction of adolescent research. The literature suggests that the most commonly used chronological definition of adolescence includes the age of 10-18. The WHO

(2015) defines an “adolescent” as an individual between the age of 10 and 19 years old, but according to the American Psychological Association (2002), it may incorporate a span of age 9 to 26 years old. For the purpose of this topic, we decided to focus on early adolescence (10-13 years old) as a 10-year-old is generally still rooted firmly within the elementary school environment (Curtis, 2015), a child’s life has revolved mainly around the family, and there is still no emotional conflict with parents (Laursen, Coy & Collins, 1998). On the contrary, a 14-year-old makes the transition to secondary education, more closely aligns with adolescent activities including increased freedom, independence, identity-searching, creating eating habits according to peers and food industry ads (Kuzman, 2009).

The study used a quantitative survey approach and consisted of two phases (data collection was carried out during the period of January-March 2018). Phase I contained a survey of elementary school teachers in order to understand their attitudes and perceptions about the importance of healthy eating habits, school food policy, and the school-parent contribution to a balanced diet. The research instrument used in this phase of the study was an online questionnaire. Data collection was organized in a way that five schools in the city of Zagreb (with 106 elementary schools in total), were conveniently selected from the school list provided by the Croatian Ministry of Education (<http://mzos.hr/dbApp/pregled.aspx?search=2&appName=OS>). The city of Zagreb was chosen, not only because of its role as the capital of Croatia but also as an educational centre with 106 elementary schools. School principals were asked to participate and to distribute the information about the online questionnaire among the staff. From the 270 returned questionnaires, only those whose children belonged to our target group (early adolescence, 10-13 years old) were included for further analysis. Accordingly, 107 (39.62%) valid responses were collected. Phase II included an online survey designed for the parents of the pupils of the selected schools. They were previously informed about the survey and the link of the online questionnaire https://www.surveymonkey.com/r/prehrambene_navike. From the 645 returned questionnaires, only those questionnaires where the respondents were parents with children 10-13 years old were included for further analysis. Therefore, 222 (34.41%) valid responses were collected.

For the purpose of providing a comprehensive understanding of parent and teacher attitudes and perceptions about healthy nutrition habits, and other school-food policy related issues, the same questionnaire was developed for parents and teachers. The questionnaire consisted of three parts. The first part included socio-demographic characteristics of the respondents. In the second part of the questionnaire respondents were asked to express their agreement/disagreement (on a five-point Likert-type scale from 5=strongly agree to 1=strongly disagree) with statements (adapted from Vereecken, van Houte, Martens, Wittebroodt & Maes, 2009) about: healthy eating, school food policy and relationships between parents and schools in promoting healthy eating. The

third part of the questionnaire related to the frequency of consumption of certain types of food products.

The data collected was analysed using SPSS 23.0. Besides the descriptive statistics calculations, the significance of the findings was explored using the Pearson correlation coefficient (PCC) and chi-square tests (χ^2), depending on the various types of the combination of variables that occurred. Before using the items for further analysis, the reliability was tested with the Cronbach's Alpha coefficient (α). The values of 0.798 and 0.634 respectively, suggested very good internal consistency reliability for the scales used in this research (the recommended standard of 0.7 has been suggested by Nunnally (1978)). The p-values were calculated to examine the level of the statistical relationship between the pairs of variables. The objectives were obtained using a conventional significance level of 0.05.

4. RESULTS AND DISCUSSION

The majority of the teachers that participated in the study (Table I.) teach 5th to 8th grade. They are female, from the age of 35 to 44 years old, most have a university degree and teach social science subjects. The majority of the parents that participated in the study were mothers (70.3%). Parental education was as follows: mothers predominantly finished university, while fathers predominantly finished high school. The majority of the sample reported having 1 to 2 children.

Table I

Teachers' and Parents' Sociodemographic Characteristics

Teachers' sociodemographic characteristics			Parents' sociodemographic characteristics	
n	%		n	%
Gender				
96	89.7	female	156	70.3
11	10.3	male	66	29.7
Age				
19	17.8	25-34 years	60	27.0
58	54.2	35-44 years	84	37.8
13	12.1	45-54 years	78	35.1
16	15.0	55-65 years	0.0	0.0
1	0.9	more than 65 years	0.0	0.0
Education level				
17	15.9	finished high school	66	29.7
83	77.6	finished university	144	64.9
7	6.5	finished PhD	12	10.6
107	100.0	TOTAL	222	100.0

Both teachers and parents were asked to state the frequency of consuming specific food categories. Figure I shows that compared to parents, teachers more frequently consume healthy food categories, such as fruits, vegetables and fish, so they are generally more healthy-food oriented.

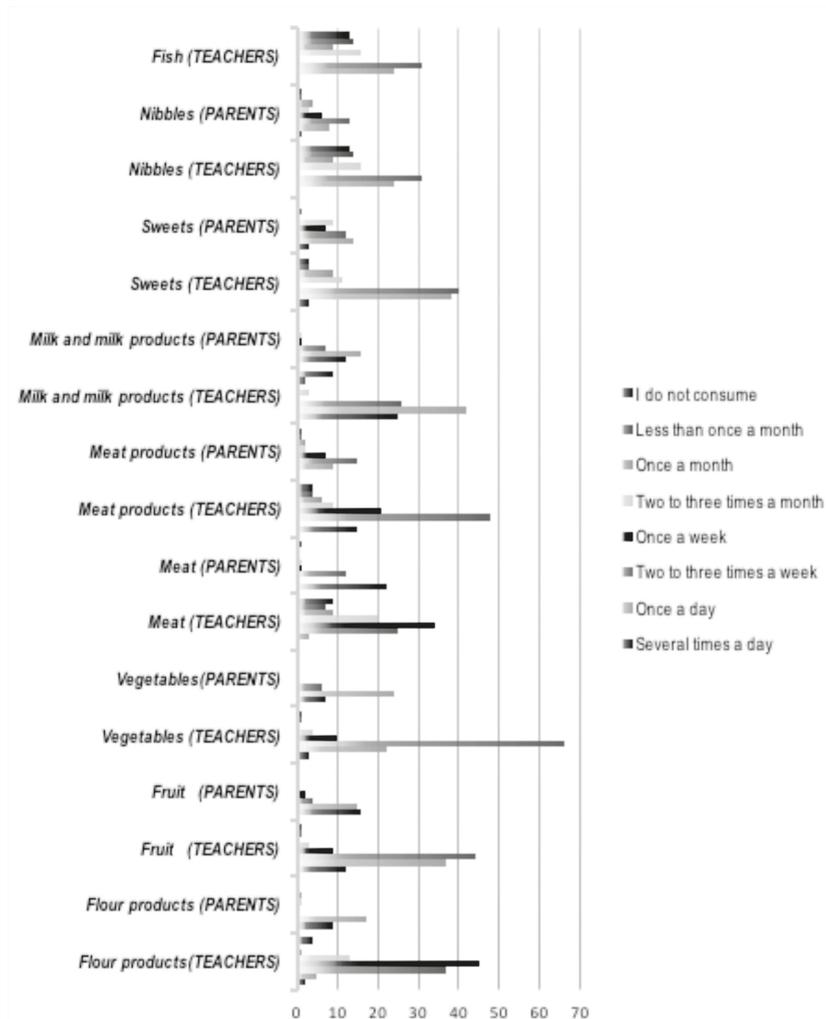


Figure I Frequency of Consuming Specific Food Categories

The first set of questions measured teachers' and parents' attitudes and perceptions about the importance of healthy eating habits. As can be seen from Table II both teachers (τ) and parents (p) have a high level of agreement with the following statements: healthy food habits need to be initiated early in life ($M_T = 4.83$; $M_p = 4.95$), it is important to eat healthy food during your life ($M_T = 4.80$;

$M_P = 4.78$), knowledge about a balanced diet should be imparted to children at school ($M_T = 4.58$; $M_P = 4.57$).

Table II

Teachers' and Parents' Attitudes and Perceptions about the Importance of Healthy Eating Habits

Teachers' evaluation		Healthy eating habits	Parents' evaluation	
M	σ		M	σ
4.83	0.400	Healthy food habits need to be initiated early in life.	4.95	0.229
4.80	0.444	It is important to eat healthy food during your life.	4.78	0.750
4.05	0.915	The influence of school on children's food habits can be so great that it can change the children's food intake.	4.32	1.029
4.58	0.701	Knowledge about a balanced diet should be imparted to children at school.	4.57	0.867
4.16	0.791	At home, we follow the guidelines for a balanced diet.	4.41	0.686

Note: M – mean, σ – standard deviation; measured by Likert scale (5=strongly agree, 1=strongly disagree)

Although parents assess healthy eating habits more positively, a number of statistical tests were performed in order to check if there were statistically significant differences among teachers' and parents' evaluation. However, with respect to these two observed groups, there were no statistically significant differences in teachers' and parents' attitudes and perceptions about the importance of healthy eating habits.

Table III

Teachers' and Parents' Attitudes and Perceptions about the School Food Policy

Teachers' evaluation		School food policy	Parents' evaluation	
M	σ		M	σ
4.64	0.618	It is an important positive aspect that a piece of fruit is available at school daily.	4.49	1.017
4.59	0.857	Soft drinks should be forbidden in schools.	3.92	1.534
3.87	1.047	Sweets and snacks should be forbidden in schools.	3.32	1.564
4.59	0.713	Schools should allow only milk, tea, 100% juice and water.	4.27	1.122
3.57	1.493	Sweets should be allowed at school only as a treat.	4.25	1.052
3.28	1.287	The teacher should ensure that children drink enough fluids during school hours.	3.70	1.351
4.24	0.811	The school should pay attention to helping children acquire healthy dietary habits.	4.70	0.571
4.53	0.644	It is important that children learn about new food at school (food that they haven't had a chance to try at home).	4.51	0.932

Note: M – mean, σ – standard deviation; measured by Likert scale (5=strongly agree, 1=strongly disagree)

Additionally, a set of t-tests and ANOVAs were conducted to analyse if there were statistically significant differences between teachers' and parents' attitudes and perceptions about school food policies with respect to sociodemographic characteristics. The research results indicate that there were statistically significant differences among male and female teachers with respect to the availability of fruit at school daily ($t=2.700$, $df=105$, $p>0,10$), allowing consumption of only milk, tea, 100% juice and water ($t=2.998$, $df=105$, $p>0,01$), the importance of learning about new foods at school ($t=2.256$, $df=105$, $p>0,05$). Furthermore, with respect to the teachers' age span, we found statistically significant differences among the age groups surveyed with respect to the importance of learning about new foods at school [$F(4, 102)=0.648$, $p=0.066$]. Younger teachers have a more positive perception of the importance that children learn about new foods at school. Older teachers differ from their younger colleagues as they believe that parents should be involved in the food policy of schools [$F(4, 102)=2.266$, $p=0.067$]. Similar research results were found in research conducted by Vereecken et al. (2009).

Table IV

Teachers' and Parents' Attitudes and Perceptions about Foods in School

Teachers' evaluation		Foods in school	Parents' evaluation	
M	σ		M	σ
4.52	0.718	As a parent I receive information about what my children learn at school about physical activity and nutrition.	4.54	0.767
3.92	1.029	As a parent I am involved in the school's food policy.	3.92	1.187
4.48	0.731	The school should inform the parents about what the child eats at school.	4.43	0.867
3.96	1.108	It is important that parents are informed about the content of school meals.	4.59	0.762
3.52	0.731	As a parent, I am satisfied about the food items available at school.	2.86	1.125
3.67	0.843	As a parent, I am satisfied with the school food policy.	2.83	1.028
4.14	0.916	I want to have an active role in healthy food school programs and to make some nutrition improvements in my family too.	4.73	0.164

Note: M – mean, σ – standard deviation; measured by Likert scale (5=strongly agree, 1=strongly disagree)

Moreover, according to the age span, we found statistically significant differences among the age groups surveyed with respect to the teachers' attitudes and perceptions about the foods in school. Younger teachers (24-35) want to have a more active role in healthy school food programs and make nutrition improvements in their family [$F(4, 102)=2.485$, $p=0.048$]. Also, it is interesting to note that teachers with a higher education level differ from teachers that only finished high school, as they agree more that parents are informed about the content of school meals [$F(4, 102)=2.774$, $p=0.067$]. We should point out that parents are willing to have a more active role in healthy school food programs, especially younger ones (24-35), as we found statistically significant differences

between younger ones who are more oriented towards healthy food and eating habits, contrasted with the older age groups [$F(4, 218)=2.485, p=0.048$].

5. CONCLUSION

For many years the relationship between parents and schools has been an important area of interest for many researchers, especially concerning adolescent eating habits. A very high percentage of adolescents are overweight today and run the risk of being overweight in later years (Lloyd, Langley-Evans & McMullen, 2012). The reasons for such a situation include inactive lifestyles, with children spending lots of time in front of televisions, computers, and other technological devices. Additionally, children are exposed to numerous eye-catching unhealthy food commercials on TV. Story and French (2004) find that children and adolescents are eating more food away from home, drinking more soft drinks, and snacking more frequently.

The findings of this study support a proactive approach in improving nutrition in schools which finally leads to increasing adolescents' focus and attention, improving test scores and better classroom behaviour (Verecken et al., 2009). Parents play an important role in school-based nutrition initiatives because they can contribute skills, expertise, and information about their children and the home environment. Their collaboration with schools presents a basis for healthy eating and physical activity. Such positive partnerships will limit any possible inconsistency between the messages communicated to children and applied in the school as well as what is communicated and applied in the home environment. The results suggest a high level of the perception of the importance that both parents and teachers express towards healthy eating habits in general. However, there are slightly higher positive assessments of school food policies among teachers, particularly among younger, higher educated teachers in comparison to parents, which is a little bit different compared to the study conducted by Verecken et al. (2009). However, these results could be related to the potential limitations of this research as it was conducted in schools in the capital city where some nutrition initiatives have been already carried out. Also, the sample consisted of conveniently selected schools and teachers only. Further research should include schools in all regions of the Republic of Croatia due to the differences in lifestyles of their citizens, the standard of living, nutrition initiatives in schools, etc. Another limitation of this survey is its focus on only one segment of adolescents, early adolescents (10-13 years old) which may not be truly representative of the general adolescent population. Therefore, further research needs to enlarge the research sample and could lead to the generalization of results. The findings from this study have important implications for the development of educational programs focusing on building a bridge between schools and parents with the goal of improving communication about adolescents' nutrition.

REFERENCES

- American Psychological Association (2002). *Developing adolescents: A reference for professionals*. Washington, DC: American Psychological Society, Retrieved September 20, 2018, from: <http://www.apa.org/pi/families/resources/develop.pdf>
- Blom-Hoffman, J., Wilcox, K.R., Dunn, L., Leff, S.S. & Power, T.J. (2008). Family Involvement in School-Based Health Promotion: Bringing Nutrition Information Home. *School Psychology Review*, 37 (4), 567–577.
- Brill, M.F., Lichtman, M. & Wu-Jung, C. (2017). *School and Family Partnerships Promote School Wellness*. The State University of New Jersey: Rutgers.
- Brown, K. A., Ogden, J., Vögele, C. & Gibson, E. L. (2008). The role of parental control practices in explaining children's diet and BMI. *Appetite*, 50 (2-3), 252–259.
- Cleland-Donnelly, F. E., Mueller, S. S. & Gallahue, D. L. (2016). *Developmental Physical Education for All Children: Theory Into Practice* (5th ed.), Champaign, IL.: Human Kinetics, Inc.
- Clelland, T., Cushman, P. & Hawkins, J. (2013). Challenges of Parental Involvement Within a Health Promoting School Framework in New Zealand, *Education Research International*, Vol. 2013, Article ID 131636, 8 pages, Retrieved September 10, 2018, from:<http://dx.doi.org/10.1155/2013/131636>
- Commission of the European Communities (2007). *White Paper on A Strategy for Europe on Nutrition, Overweight and Obesity related health issues*. 279 Final, Brussels, Retrieved September 25, 2018, from: http://ec.europa.eu/health/archive/ph_determinants/life_style/nutrition/documents/nutrition_wp_en.pdf.
- Curtis, A. C. (2015). Defining Adolescence, *Journal of Adolescent and Family Health*, 7 (2), Article 2, Retrieved September 20, 2018, from: <http://scholar.utc.edu/jafh/vol7/iss2/2>
- Dev, D., Byrd-Williams, C., Ramsay, S. and McBride, B. A., Srivastava, D., Murriel, A. L., Arcan, C. & Adachi-Mejia, A. M. (2017). Engaging Parents to Promote Children's Nutrition and Health: Providers' Barriers and Strategies in Head Start and Child Care Centers, *American Journal of Health Promotion*, 31 (2) 153-162.
- Elias, M. J., Bryan, K., Patrikakou, E. N. & Weissberg, R. P. (2003). Challenges in Creating Effective Home-School Partnerships in Adolescence: Promising Paths for Collaboration, *The School Community Journal*, 13 (1), 133-154.
- Emerson, L., Fear, J., Fox, S. & Sanders, E. (2012). *Parental engagement in learning and schooling: Lessons from research*. A report by the Australian

Research Alliance for Children and Youth (ARACY) for the Family-School and Community Partnerships Bureau: Canberra, Retrieved September 20, 2018, from: http://www.communityhubs.org.au/wp-content/uploads/2017/10/Parental_engagement_in_learning_and_schooling_Lessons_from_research_BUREAU_ARACY_August_2012.pdf

Evans, A. E., Wilson, D. K., Buck, J., Torbett, H. & Williams, J. (2006). Outcome expectations, barriers, and strategies for healthful eating: a perspective from adolescents in low-income families. *Family and Community Health*, 29 (1), 17-27.

Inchley, J., Muldoon, J. & Currie, C. (2007). Becoming a health promoting school: evaluating the process of effective implementation in Scotland. *Health Promotion International*, 22 (1), 65–71.

Isomaa A.-L., Isomaa, R., Marttunen, M. & Kaltiala-Heino, R. (2010) Obesity and eating disturbances are common in 15-year-old adolescents. A two-step interview study, *Nordic Journal of Psychiatry*, 64 (2), 123-129.

Kubik, M. Y., Lytle, L. & Fulkerson, J. A. (2005). Fruits, vegetables, and football: findings from focus groups with alternative high school students regarding eating and physical activity. *Journal of Adolescent Health*, 36 (3), 494-500.

Kuzman, M. (2009.). Adolescencija, adolescenti i zaštita zdravlja. *Medicus*, 18 (2), 155–172.

Laursen, B., Coy, K. C. & Collins, W. A. (1998). Reconsidering changes in parent-child conflict across adolescence: A meta-analysis. *Child Development*, 69 (3), 817-832.

Lloyd, L. J., Langley-Evans, S. C. & McMullen, S. (2012). Childhood obesity and risk of the adult metabolic syndrome: a systematic review, *International Journal of Obesity*, 36 (1), 1–11.

Lobstein, T., Jackson-Leach, R., Moodie, M. L., Hall, K. D., Gortmaker, S. L., Swinburn, B. A., James, W. P., Wang, Y. & McPherson, K. (2015). Child and adolescent obesity: part of a bigger picture, *Lancet*, 385 (9986), 2510.-2520.

McGrath W. (2007). Ambivalent partners: power, trust, and partnership in relationships between mothers and teachers in a full-time childcare center. *Teachers College Record*, 109 (6), 1401-1422.

Ministry of Health of the Republic of Croatia (2013). Nacionalne smjernice za prehranu učenika u osnovnim školama (National School Eating Norms). Narodne novine d.d., Zagreb, Retrieved September 20, 2018, from: http://www.hdnd.hr/wp-content/uploads/2015/05/Nacionalne_smjernice_za_prehranu_ucenika_u_osnovnim_skolama.pdf.

Neumark-Sztainer, D., Story, M., Ackard, D., Moe, J. & Perry, C. (2000). The „Family Meal“: Views of adolescents. *Journal of Nutrition Education*, 32(6), 329–334.

Neumark-Sztainer, D., Story, M., Perry, C. & Casey, M. A. (1999). Factors influencing food choices of adolescents: Findings from focus-group discussions with adolescents. *Journal of the American Dietetic Association*, 99 (8), 929–937.

Nunnally, J. C. (1978). *Psychometric theory*. New York: McGraw-Hill.

Pearson, N., Biddle, S. J. & Gorely, T. (2009). Family correlates of fruit and vegetable consumption children and adolescents: A systematic review. *Public Health Nutrition*, 12 (2), 267–283.

Pérez - Rodrigo, C. & Aranceta, J. (2001). School-based nutrition education: lessons learned and new perspectives. *Public Health Nutrition*, 4 (1A), 131-139.

Poti, J. M. & Popkin, B. M. (2011). Trends in energy intake among US children by eating location and food source 1977–2006. *Journal of the American Dietetic Association*, 111 (8), 1156–1164.

Power, T. G., Bindler, R. C., Goetz, S. & Daratha, K. B. (2010). Obesity prevention in early adolescence: student, parent, and teacher views. *Journal of School Health*, 80 (1), 13–19.

Psaki, S. (2016). Addressing child marriage and adolescent pregnancy as barriers to gender parity and equality in education. *Prospects*, 46 (1), 109.-129.

Reicks, M., Banna, J., Cluskey, M., Gunther, C., Hongu, N., Richards, R., Topham, G. & Wong, S. S. (2015). Influence of Parenting Practices on Eating Behaviors of Early Adolescents during Independent Eating Occasions: Implications for Obesity Prevention. *Nutrients*, 7 (10), 8783–8801.

Salvy, S. J., Elmo, A., Nitecki, L. A., Kluczynski, M. A. & Roemmich, J. N. (2011). Influence of parents and friends on children's and adolescents' food intake and food selection. *American Journal of Clinical Nutrition*, 93 (1), 87–92.

Savage, J. S., Orlet Fisher, J. & Birch, L. L. (2007). Parental Influence on Eating Behavior: Conception to Adolescence. *The Journal of Law, Medicine & Ethics*, 35 (1), 22–34.

Steinberg, L. (2014). *Age of opportunity: Lessons from the new science of adolescence*. Boston. MA: Houghton Mifflin Harcourt.

St Leger, L., Young, I., Blanchard, C. & Perry, M. (2010). Promoting Health in Schools from Evidence to Action. International Union for Health Promotion and Education, Retrieved September 27, 2018, from: https://dashbc.ca/wp-content/uploads/2013/03/Promoting_Health_in_Schools_from_Evidence_to_Action.pdf

Storcksdieck, S., Bonsmann, G., Kardakis, T., Wollgast, J., Nelson, M. & Caldeira, S. (2014). Mapping of National School Food Policies across the EU28 plus Norway and Switzerland, JRC Science and Policy Reports, EC (European

Commission), Luxembourg: Publications Office of the European Union. Retrieved September 27, 2018, from: <http://ihcp.jrc.ec.europa.eu/>

Story, M. & French, S. (2004). Food Advertising and Marketing Directed at Children and Adolescents in the US. *International Journal of Behavioural Nutrition and Physical Activity*, 1 (3), <https://ijbnpa.biomedcentral.com/articles/10.1186/1479-5868-1-3>

Taylor, N., Quinn, F., Littledyke, M. & Coll, R. K. (Eds) (2012). *Health Education in Context: An International Perspective on Health Education in Schools and Local Communities*. Rotterdam: Sense Publishers.

Vereecken, C., van Houte, H., Martens, V, Wittebroodt, I. & Maes, L. (2009). Parents' and Teachers' Opinions about the School Food Policy in Belgian Flemish Nursery Schools, *International Journal of Environmental Research and Public Health*, 6 (3), 1268–1281.

Videon, T. M. & Manning, C. K. (2003). Influences on Adolescent Eating Patterns: The Importance of Family Meals. *Journal of Adolescent Health*, 32 (5), 365–373.

Whitney, E. & Rolfes, S. (2015). Life cycle nutrition: Infancy, childhood and adolescence. In: *Understanding Nutrition*, 14 edition, Wadsworth Publishing, Stamford, USA; 509-548.

WHO (2015). Adolescent health. Retrieved September 26, 2018, from: http://www.who.int/topics/adolescent_health/en/

WHO (2014). *Global Status Report on Noncommunicable Diseases*, Geneva, Switzerland, Retrieved September 26, 2018, from: http://apps.who.int/iris/bitstream/handle/10665/148114/9789241564854_eng.pdf;jsessionid=ADFE4E3B22F80BBE9192BE8AA7989DBB?sequence=1

WHO (2013). *Vienna Declaration on Nutrition and Noncommunicable Diseases in the Context of Health 2020*. Retrieved September 26, 2018, from: http://www.euro.who.int/__data/assets/pdf_file/0005/193253/CONSENSUS-Vienna-Declaration-5-July-2013.pdf

Wilson, D. K., Williams, J., Evans, A., Mixon, G. & Rheaume, C. (2005). Brief Report: A Qualitative Study of Gender Preferences and Motivational Factors for Physical Activity in Underserved Adolescents. *Journal of Pediatric Psychology Advance Access*, 30 (3), 293-297.

<http://mzos.hr/dbApp/pregled.aspx?search=2&appName=OS>, Retrieved September 26, 2018.

<https://ec.europa.eu/jrc/en/news/healthy-school-food-expo-milano-2015>, Retrieved September 23, 2018.

https://ec.europa.eu/health/sites/health/files/nutrition_physical_activity/docs/pheiac_nutrition_strategy_evaluation_en.pdf, Retrieved September 23, 2018.

<http://www.ucenicki-dom-podmurvice.hr/prehrana/nacela-prehrane.html>, Retrieved September 23, 2018.

www.healthymealstandard.eu, Retrieved September 25, 2018.

https://ec.europa.eu/health/sites/health/files/nutrition_physical_activity/docs/childhoodobesity_actionplan_2014_2020_en.pdf, Retrieved September 25, 2018.

Diana Gluhak Spajić, doktorandica

RED FORK Ltd
Vlasnica Healthy Meal Standarda
E-mail: diana@redfork.hr

Dr. sc. Sanda Renko

Redovita profesorica
Sveučilište u Zagrebu
Ekonomski fakultet
Katedra za trgovinu i međunarodno poslovanje
E-mail: srenko@efzg.hr

Dr. sc. Kristina Petljak

Docentica
Sveučilište u Zagrebu
Ekonomski fakultet
Katedra za trgovinu i međunarodno poslovanje
E-mail: kpetljak@efzg.hr

NUŽNOST SURADNJE IZMEĐU RODITELJA, UČITELJA I ŠKOLA ZA ZDRAVIJU PREHRANU ADOLESCENATA

Sažetak

Ovaj se rad fokusira na odnos između roditelja i škola u promicanju zdrave prehrane među adolescentima pošto isti ima važnu ulogu u stvaranju zdrave prehranbene navike u adolescenata. Svrha rada je identificirati razlike između percepcije roditelja i nastavnika o zdravoj prehrani u školi, kao i partnerstvo među njima. Rad se temelji na kvantitativom istraživanju među učiteljima i roditeljima i upravo taj pristup predstavlja i najveće ograničenje rada jer je obuhvatio uzorak odabranih škola i učitelja. Također, ograničenje ovog istraživanja proizlazi iz njegove usmjerenosti na rane adolescente (10-13 godina). Rezultati istraživanja impliciraju da ne postoji statistički signifikantna razlika među stavovima roditelja i učitelja te da je potreban proaktivan i pozitivan pristup prihvaćanju zdrave prehrane. U skladu sa spomenutim, istraživački rezultati imaju važne implikacije za razvoj obrazovnih programa usmjerenih na povezivanje škola i roditelja s ciljem poboljšanja komunikacije o prehrani adolescenata.

Ključne riječi: zdrava hrana, roditelji, škola, učitelji, adolescenti, Hrvatska.

JEL klasifikacija: L66.